

EXHIBIT 5

Expert Report
of
GLENN W. PERDUE, MBA, CVA, MAFF, CLP

Submitted on behalf of the Plaintiff in the matter of:

LONE STAR TECHNOLOGICAL INNOVATIONS, LLC
(Plaintiff)

vs.

ASUSTEK COMPUTER INC.
(Defendant)

Case No. 6:19-cv-00059-RWS
In the United States District Court for the Eastern District of Texas, Tyler Division

Submitted:

Wednesday, September 2, 2020

assessment of licensing-related information for comparable and analogous technology supports the entire unit being used as the appropriate basis for assessing the royalty base as discussed later in this report.

16. Additionally, I understand the following from my discussion with Dr. Ducharme:

- i. Color and color accuracy matter to users of monitors;
- ii. Calibration is usually required to obtain desired colors;
- iii. Users of Accused Devices will use the patented technology at least once after their purchase;
- iv. According to various sources, color calibration/adjustment is recommended after 200-300 hours of use (about once a month) or every 2-6 weeks.

(C) Timeline

17. The following provides a timeline summary relevant to the calculation of damages:⁷

August 6, 2001: Application filed with USPTO for patent-in-suit

April 20, 2004: '435 patent issued by USPTO

March 2013: The first month for which financial information related to the Accused Devices was provided. Based on this information, I understand this is considered to be the date of first infringement.

February 20, 2019: filing date of Original Complaint in this matter and date of "actual notice" per paragraph 18 of the Amended Complaint.

September 3, 2019: filing date for the Amended Complaint.

March 15, 2021: Trial date per Amended Docket Control Order issued 3/12/2019.

October 24, 2022: Expiration date of the '435 patent per counsel.

⁷ Information cited in the timeline section was obtained through the patent-in-suit, the Complaint and other sources as cited above.

I understand this capability is embodied in Accused Devices through calibration/adjustment functions for individual colors that provides benefits discussed in the factors that follow below.

Factor 11: The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.

Dr. Ducharme indicated that he obtained an Asus ProArt PA328Q Monitor to conduct some of his analysis as to use of the patented invention.

In reviewing the web page for this product, I noted the following product overview:³³

**ASUS ProArt PA328Q Professional
Monitor - 32" 4K UHD(3840 x
2160), IPS, Color Accuracy $\Delta E < 2$,
Flicker free**

- Professional-grade 32-inch 4K/UHD display with four times the pixel density of Full HD displays.
- Factory pre-calibrated, industry-leading color accuracy with 100% sRGB and Rec. 709 color space support.
- Extensive connectivity with HDMI, DisplayPort 1.2, and MHL 3.0 for smooth 4K/UHD content playback.
- ASUS Eye Care Technology with TÜV Rheinland-certified Flicker-free technology which eliminates onscreen flicker
- Adjust for maximum comfort with ergonomic tilt, swivel, pivot and height adjustments plus wall-mount capability. PA328Q is a recipient of a 2014 Red Dot Award for its outstanding design.

I understand that the color accuracy noted in the heading (Color Accuracy $\Delta E < 2$) and the second bullet point above (Factory pre-calibrated, industry-leading color accuracy with 100% sRGB and Rec. 709 color space support) both relate to the patented feature. I also understand that this calibration capability is used not only by consumers, but as part of the quality control process before the monitor leaves the factory. I noted similar and additional discussion of these features on the "specifications" page.³⁴

The Defendant's promotion of the patented feature coupled with the history of sales and profits for the Accused Devices supports its value to, and extent of use by, Asus.

³³ <https://www.asus.com/us/Monitors/ProArt-PA328Q/> - accessed 8/31/2020

³⁴ <https://www.asus.com/us/Monitors/ProArt-PA328Q/specifications/> - accessed 8/31/2020

IV. REASONABLE ROYALTY DAMAGE CALCULATION

26. In the preceding discussion I provide support for the appropriateness of a [REDACTED] royalty rate being applied to net revenue after an [REDACTED] apportionment reduction. This leads to the reasonable royalty calculations in **Exhibit 5**.

27. The same reasonable royalty results could also be obtained by adjusting the royalty rate downward instead of adjusting the royalty base. Under this approach, the effective royalty rate would be [REDACTED]. This reduced royalty rate would be applied directly to net revenue (without apportionment) to obtain the same results noted in **Exhibit 5**.

28. **Exhibit 5** presents two sets of calculations given potential rulings by the trier of fact that may include certain periods but not others.³⁶ The final calculation in Section B extends through expiration of the '435 patent.

Respectfully Submitted,



Glenn W. Perdue
Wednesday, September 2, 2020

³⁶ Post-trial damage calculations in Section (B) do not consider enhanced damages that could be awarded due to willfulness or other factors.